

Global food security: what matter?

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Food security, as defined by the Food and Agriculture Organisation (FAO), occurs when all people, at all times, can access sufficient, safe and nutritious food to meet their dietary needs for a healthy life (FAO, 2003). To achieve food security has never been easy for many countries. Currently, achieving food security has become ever more challenging due to the declining natural resources but growing need for environmental protection, production uncertainties caused by climate changes, international trade disorders and further complications to existing challenges triggered by the COVID-19 pandemic. This makes it very imperative to educate university students, who will be future leaders of our society, about food security and how to improve food security. Zhang-Yue Zhou's new textbook, *Global Food Security: What Matters?*² is a timely and valuable addition for the much needed food security education at the university levels.

The book is especially designed and written for those who are new to the area of food security. It first helps the reader to grasp the concept of food security, how it is measured and frameworks used for evaluating food security. It then gradually leads the reader to more analytical components. Given that the book is written at an introductory level, it can be a valuable reading not only for university students, but also for anyone who has little prior knowledge of but is interested in understanding food security, such as officials of government food departments, food security researchers and the general public.

There are 6 parts and 14 chapters in the text. Part 1 has two chapters. Chapter 1 opens the book with an overview and definitions of food, food security and highlights major frameworks that are used to evaluate food security at various levels. Chapter 2 depicts the current status of food security at the global and sub-continental levels. Also, in this chapter, the reader is made aware of major trends and challenges in achieving food security.

Having laid the foundation in Part 1, in the next three parts the reader is introduced to basics of food demand and supply and how the changes in demand and supply ultimately affect a country's food security levels. Part 2 has three chapters and focusses on examining key determinants that influence food demand, such as population in Chapter 3, income in Chapter 4 and other important factors in Chapter 5.

Part 3 examines key determinants of food supply. In Chapter 6, how the quantity and quality of natural resources available to a country may affect food supply is discussed. Chapter 7 addresses the significant role of technological progress in boosting food supply as evidenced by historical data. Other important determinants of food supply are discussed in Chapter 8, such as input costs, climate change, biosecurity and trade liberalisation.

Having addressed food demand and supply separately in the previous two parts, Part 4 brings them together to demonstrate what can be done to influence them to move towards an equilibrium in the market, i.e. the demand is largely equal to the supply and thus for better food security. Chapter 9 shows various approaches used at the national level to try to



influence a country's food demand or supply for better food security; some of them failed miserably and some had varying degrees of efficacy. In Chapter 10, efforts at the international level to coordinate food demand and supply for better global and regional food security are presented.

Part 5 leads the reader to real-life cases in which how different policy approaches practised by national governments resulted in diverse results. Chapter 11 looks at the experiences of countries with low and medium levels of food security, such as China, Fiji, India, North Korea, Venezuela and Zimbabwe. Chapter 12 examines those with high levels of food security, such as Israel, Japan, the Netherlands, Singapore and South Korea. A comparison of the food security practices of different countries is carried out in Chapter 13, which enabled to pinpoint the key determinants that led countries' food security levels to differ.

Part 6 concludes the book by emphasising that amongst all the key determinants, a nation's political (or governmental) institution is the utmost important one that determines a country's food security level. Countries with political institutions that hold the governments responsible to their people (e.g. in most democratic countries) enjoy higher levels of food security. Those with political institutions that only look after the interests of the elite few suffer from lower levels of food security. Hence, the answer given by Zhou to the very question he raised in this book about what matters to food security is the political institution that a country adopts.

In various parts of the book, Zhou shares his views and observations about what retards or facilitates a country to achieve food security. Some of those are contrary to many prevailing ones. For example, opinions such as "smallholder farmers are key to food security" or "smallholder farmers are essential to achieve food security" are widespread. This, however, in Zhou's view, is a fantasy (Chapter 8). He argues that small farms are not necessarily essential, but can actually be harmful, to a country's food security. This is simply because small-scale operations often generate limited marketable surplus food; over time, this surplus would only become even smaller when family population increases faster than they can grow more on their limited land. He calls for the researchers and policy makers to distinguish between family farms and small farms. Small farms are small, but family farms do not have to be small and can be large in operations. Encouraging family based farming is fine but not small farming.

In recent years, there is also a growing concern about rural labour shortage; workers have been attracted away from farming, thus affecting food production. According to Zhou, such concerns are not necessary. He believes the key is for policy makers to ensure that resources including labour can move freely between farm and non-farm sectors in response to economic incentives and that mechanisms are in place to ensure farming income is comparable to that in other sectors of the economy. When this is the case, there will be always people who choose to work on farm willingly.

Some excuses have been often cited as responsible for a country's poor food security, such as large population, lack of natural resources or the country being economically poor. Through country cases (Chapters 12 and 13 and elsewhere), Zhou provides convincing arguments to dismiss such convenient excuses used by those governments who are unable to provide food security for their people. China used to be poor, lack of resources and with large population. Yet, China's food security has impressively improved since the 1980s. When the Korean Peninsula was separated to become South Korea and North Korea, the North had less population, better economic conditions and better resource endowment than the South. Currently, food is secure in South Korea but not in North Korea. Rich resource endowment does not guarantee a country's high level of food security (e.g. Venezuela and Zimbabwe). Similarly, a lack of resources does not have to prevent a country from achieving a high level of food security (e.g. Israel, the Netherlands and Singapore).

Hence, the message conveyed by Zhou's book is clear: if a country's food security is low, the causes must be found in the settings of the country's institutions (as summarised in Chapter 14). Unless the beneficiaries and the elite few in food insecure countries are willing to support reforms to their current institutions, especially their political institutions, low levels of food security will unfortunately prevail.

This book is friendly and logically structured. The sequence of the materials facilitates the reader's progressive understanding. By containing some advanced contents in chapter appendixes, it enables postgraduate students the opportunities to challenge themselves but it does not affect the flow of the reading by undergraduate students at the introductory levels. It is written in easily comprehensible language as well. Indeed, it should serve well as a legible reading for anyone who is interested in the subject of food security.

Written as a textbook, it comes with some useful teaching-learning features such as "review questions" (to reinforce key take-away messages from a chapter), "discussion questions" (to challenge students to apply what they have learnt to the real-world issues) and "further reading and resources" (to help the more serious reader to further their insight into this important topic of food security). Those "boxes" throughout the text also provide useful resources. Instructors of university courses pertaining to food security should find this book a valuable text for their classes.

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Reference

FAO (2003), *Trade Reforms and Food Security*, FAO, Rome.